CLAIMS:

1. A controllable optical switching module for selectively switching through optical signals (os1 to osN), comprising:

at least N optical inputs (i1 to iN);

at least N optical outputs (e1 to eN);

a switching matrix having a plurality of switching points; and

a control unit switching through a respective optical signal (os1 to osN) from one of the optical inputs (i1 to iN) via a respective one of the switching points in the switching matrix to one of the optical outputs (e1 to eN);

an order of arrangement of the optical inputs (i1 to iN) being determined by a respective attenuation (A1 to AN) produced when the optical signals (os1 to osN) are switched through from the optical inputs (i1 to iN) via the switching points to the optical outputs (e1 to eN) increasing or decreasing from the first to the Nth optical input (i1 to iN).

2. The controllable optical switching module as claimed in claim 1,wherein an order of arrangement of the optical outputs is determined by the order of the optical inputs connected to the optical outputs via a respective switching point.

3. The controllable optical switching module as claimed in claim 1, further comprising at least one matching unit matching optical switching inputs (si1 to si2) of the switching matrix and/or optical switching outputs (se1 to seN) of the switching matrix to the orders of the arrangement of the optical inputs (i1 to iN) and of the optical outputs (e1 to eN) according to the attenuations (A1 to AN).

4. The controllable optical switching module as claimed in claim 2, further comprising at least one matching unit matching optical switching inputs (si1 to si2) of the switching matrix and/or optical switching outputs (se1 to seN) of

the switching matrix to the orders of the arrangement of the optical inputs (i1 to iN) and of the optical outputs (e1 to eN) according to the attenuations (A1 to AN).

5. The controllable optical switching module as claimed in any one of claims 1 to 4, wherein with increasing attenuation ($A1 < A2 < ... < AN$), a connection path having the lowest attenuation (A1) contains the first optical input (i1) and/or the first optical output (e1), and wherein with decreasing attenuation ($A1 > A2 > ... > AN$), a connection path having the highest attenuation (A1) contains the first optical input (i1) and/or the first optical output (e1).

6. The controllable optical switching module as claimed in any one of claims 1 to 4, wherein with increasing attenuation, ($A1 < A2 < ... < AN$), a connection path having the highest attenuation (AN) contains the Nth optical input (iN) and/or the Nth optical output (eN), and wherein with decreasing attenuation ($A1 > A2 > ... > AN$), a connection path having the lowest attenuation (AN) contains the Nth optical input (iN) and the Nth optical output (eN).

7. The controllable optical switching module as claimed in claim 3, wherein the orders of the arrangement of the optical inputs (i1 to iN) and of the optical outputs (e1 to eN) are processed in the control unit when the optical signals (os1 to osN) are switched through.

8. The controllable optical switching module as claimed in claim 4, in that the orders of the arrangement of the optical inputs (i1 to iN) and of the optical outputs (e1 to eN) are processed in the control unit when the optical signals (os1 to osN) are switched through.

9. The controllable optical switching module as claimed in claim 5, in that the orders of the arrangement of the optical inputs (i1 to iN) and of the optical outputs (e1 to eN) are processed in the control unit when the optical signals (os1 to osN) are switched through.

10. The controllable optical switching module as claimed in claim 6, in that the orders of the arrangement of the optical inputs (i1 to iN) and of the optical

outputs (e1 to eN) are processed in the control unit when the optical signals (os1 to osN) are switched through.

11. An optical crossconnect comprising:

a first, a second and a third switching stage, each switching stage constructed from a plurality of parallel-connected controllable optical switching modules;

each controllable optical switching module comprising: at least N optical inputs (i1 to iN); at least N optical outputs (e1 to eN); a switching matrix having a plurality of switching points; and a control unit switching through a respective optical signal (os1 to osN) from one of the optical inputs (i1 to iN) via a respective one of the switching points in the switching matrix to one of the optical outputs (e1 to eN); an order of arrangement of the optical inputs (i1 to iN) being determined by a respective attenuation (A1 to AN) produced when the optical signals (os1 to osN) are switched through from the optical inputs (i1 to iN) via the switching points to the optical outputs (e1 to eN) increasing or decreasing from the first to the Nth optical input (i1 to iN);

each of the controllable optical switching modules of the first, second and third switching stages having 2*N inputs (i1 to i2N) and 2*N outputs (e1 to e2N), with N controllable optical switching modules being connected in parallel in the first and third switching stages, and 2*N controllable optical switching modules (OSM) being connected in parallel in the second switching stage;

optical supply line fibers are respectively connected to the first N inputs (i1 to iN), having the lowest attenuation values, of the N controllable optical switching modules arranged in the first switching stage;

a respective output (e1 to e2N) of a controllable optical switching module arranged in the first switching stage is connected to precisely one input (i1 to i2N) of a 2*N controllable optical switching module arranged in the second switching stage;

a respective input (i1 to i2N) of a controllable optical switching module arranged in the third switching stage is connected to precisely one output (e1 to

e2N) of a 2*N controllable optical switching module arranged in the second switching stage; and

optical discharge fibers are respectively connected to the first N outputs (e1 to eN), having the lowest attenuation values, of the N controllable optical switching modules arranged in the third switching stage.